RF Amplifier
High Gain: 10.0 dB

Model QBH-8407
50 to 2000 MHz

Features
- High Gain: 10.0 dB Typical
- High Power: +28 dBm Typical
- Operating Temp. - 40 ºC to +70 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
Frequency	50 - 2000 MHz	50 - 2000 MHz
Gain (dB)	10.0 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.8	1.8 Max.
Reverse Isolation (dB)	-20	-19 Min.
VSWR In	1.7:1	2.1:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
1 dB Compression (dBm)	+28	+24.5 Min.
Output Intercept point		
3rd Order	+42	+37 Min.
2nd Order	+50	+45 Min.
Noise Figure (dB)	4.5	7.5 Max.
Power Vdc	+15	+15
Power mA	220	240 Max.

Maximum Ratings
Ambient Operating Temperature ..... -55 ºC to +125 ºC
Storage Temperature ..... -65 ºC to + 150 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 μsec Max.)

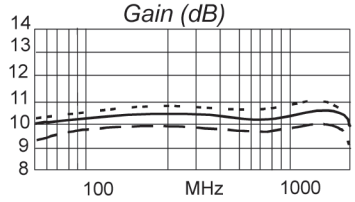
Note:
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.
2. Noise Figures increase below 500 NHz

Packaging Options (see Appendix)
QBH-8407, Hybrid SM (E52-19422)

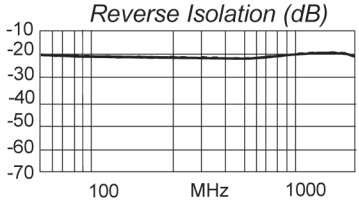
Legend ——— + 25 ºC – – – + 70 ºC - - - - - - -40 ºC

Typical Performance Data

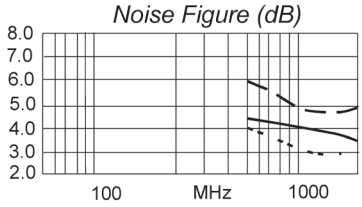
Gain (dB)



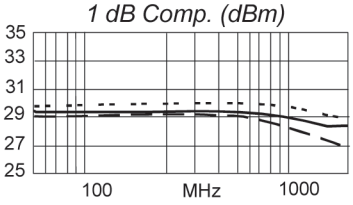
Reverse Isolation (dB)



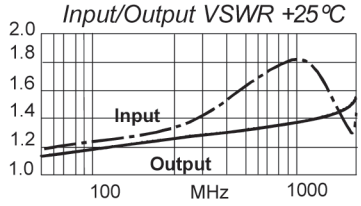
Noise Figure (dB)



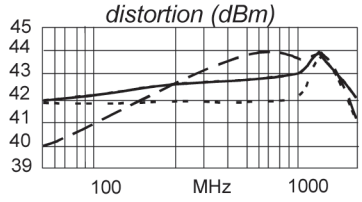
1 dB Comp. (dBm)



Input/Output VSWR +25°C



3rd order intermodulation distortion (dBm)



Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
50	-19.9	-133.9	9.8	-177.4	-21.0	-9.2	-23.7	-118.1
90	-19.3	-147.0	10.2	170.5	-21.3	-15.4	-20.8	-146.4
300	-15.2	-167.8	10.4	124.9	-21.7	-44.8	-18.0	177.8
600	-12.1	157.1	10.3	66.1	-21.7	-87.1	-16.9	146.5
900	-11.1	118.2	10.2	8.3	-21.5	-131.4	-16.1	112.7
1200	-11.1	75.5	10.4	-51.0	-21.0	-178.2	-15.7	75.5
1500	-12.8	20.3	10.5	-113.1	-20.5	130.7	-15.0	31.7
1800	-17.9	-78.8	10.4	-179.5	-20.1	75.0	-14.2	-27.8
2000	-14.5	174.8	10.0	133.2	-20.1	33.6	-13.5	-75.9

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